AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method comprising:

initiating, by an active device on behalf of a group of devices, a downloading session to a group address associated with the group of devices, wherein the group of devices includes the active device and a plurality of passive devices, wherein initiating includes downloading a file to be transmitted as a plurality of packets of data by the active device and a first set of the plurality of passive devices, wherein one or more passive devices of the plurality of passive devices joining the first set after the initiation of the downloading session receive missing packets via their retransmission to the active device, and wherein packet loss is uniformly distributed between the active device and the first set of the plurality of devices joining the downloading session at the same time;

checking, by a second set of the plurality of passive devices, for packet gaps once the download of the file is completed, wherein the packet gap occurs if the file size is known and a number of packets of the plurality of packets are lost and a total size of the number of lost packets is less than a pre-selected amount, wherein checking includes tracking a continuity of two or more package gaps; and

promoting one or more of the second set of the plurality of passive devices to being one or more smart devices if the packet gap is detected for the one or more of the second set of the plurality of passive devices, wherein the second set of the plurality of passive devices are tracked and the one or

more of the second set of the plurality of passive devices are proactively selected and promoted to becoming the one or more smart devices~~, wherein the second set of the plurality of passive devices to track packet gap information relating to one or more of the packet gaps, the packet gap information including sizes of the packet gaps or frequencies of the packet gaps, and wherein the one or more of the second set of the plurality of passive devices are promoted to being the one or more smart devices or become one or more active devices based on the track packet gap information~~.

2. (Previously presented) The method of claim 1 wherein initiating comprises multicasting to the multiple clients using a multicast Trivial File Transfer Protocol (TFTP).

3. (Cancelled)

4. (Previously presented) The method of claim 1 wherein downloading occurs during a pre-boot phase of the active device.

5. (Previously presented) The method of claim 1 wherein the file comprises a boot image for the active device.

Claims 6-18 (Cancelled)

19. (Currently amended) An apparatus comprising:

means for initiating, by an active device on behalf of a group of devices, a downloading session to a group address associated with the group of devices, wherein the group of devices includes the active device and a plurality of passive devices, wherein initiating includes downloading a file to be transmitted as a plurality of packets of data by the active device and

a first set of the plurality of passive devices, wherein one or more passive devices of the plurality of passive devices joining the first set after the initiation of the downloading session receive missing packets via their retransmission to the active device, and wherein packet loss is uniformly distributed between the active device and the first set of the plurality of devices joining the downloading session at the same time;

means for checking, by a second set of the plurality of passive devices, for packet gaps once the download of the file is completed, wherein the packet gap occurs if the file size is known and a number of packets of the plurality of packets are lost and a total size of the number of lost packets is less than a pre-selected amount; and

means for promoting one or more of the second set of the plurality of passive devices to being one or more smart devices if the packet gap is detected for the one or more of the second set of the plurality of passive devices, wherein the second set of the plurality of passive devices are tracked and the one or more of the second set of the plurality of passive devices are proactively selected and promoted to becoming the one or more smart devices~~, wherein the second set of the plurality of passive devices to track packet gap information relating to one or more of the packet gaps, the packet gap information including sizes of the packet gaps or frequencies of the packet gaps, and wherein the one or more of the second set of the plurality of passive devices are promoted to being the one or more smart devices or become one or more active devices based on the track packet gap information~~.

20. (Previously presented) The apparatus of claim 19 wherein initiating comprises means for multicasting to the multiple clients using a multicast Trivial File Transfer Protocol (TFTP).

21. (Previously presented) The apparatus of claim 19 wherein downloading occurs during a pre-boot phase of the active device.

22. (Previously presented) The apparatus of claim 19 wherein the file comprises a boot image for the active device.

23. (Currently amended) A system comprising:

one or more processors;

a network interface coupled with the one or more processors; and

computer-readable medium coupled with the one or more processors having

stored thereon instructions that, when executed, cause one or more processors to

initiate, by an active device on behalf of a group of devices, a

downloading session to a group address associated with the group of devices, wherein the group of devices includes the active device and a plurality of passive devices, wherein initiating includes downloading a file to be transmitted as a plurality of packets of data by the active device and a first set of the plurality of passive devices, wherein one or more passive devices of the plurality of passive devices joining the first set after the initiation of the downloading session receive missing packets via their retransmission to the active device, and wherein packet loss is uniformly distributed between the active device and the first set of

the plurality of devices joining the downloading session at the same time;

check, by a second set of the plurality of passive devices, for packet gaps once the download of the file is completed, wherein the packet gap occurs if the file size is known and a number of packets of the plurality of packets are lost and a total size of the number of lost packets is less than a pre-selected amount; and

promote one or more of the second set of the plurality of passive devices to being one or more smart devices if the packet gap is detected for the one or more of the second set of the plurality of passive devices, wherein the second set of the plurality of passive devices are tracked and the one or more of the second set of the plurality of passive devices are proactively selected and promoted to becoming the one or more smart devices~~, wherein the second set of the plurality of passive devices to track packet gap information relating to one or more of the packet gaps, the packet gap information including sizes of the packet gaps or frequencies of the packet gaps, and wherein the one or more of the second set of the plurality of passive devices are promoted to being the one or more smart devices or become one or more active devices based on the track packet gap information~~.

24. (Previously presented) The system of claim 23 wherein the one or more processors are further caused to initiate comprises multicasting to the multiple clients using a multicast Trivial File Transfer Protocol (TFTP).

25. (Previously presented) The system of claim 23 wherein downloading occurs during a pre-boot phase of the active device.

26. (Previously presented) The system of claim 23 wherein the file comprises a boot image for the active device.

Claims 27-29 (Cancelled)

30. (New) The method of claim 1, wherein the second set of the plurality of passive devices to track packet gap information relating to one or more of the packet gaps, the packet gap information including sizes of the packet gaps or frequencies of the packet gaps, and wherein the one or more of the second set of the plurality of passive devices are promoted to being the one or more smart devices or become one or more active devices based on the track packet gap information.

31. (New) The apparatus of claim 19, wherein the second set of the plurality of passive devices to track packet gap information relating to one or more of the packet gaps, the packet gap information including sizes of the packet gaps or frequencies of the packet gaps, and wherein the one or more of the second set of the plurality of passive devices are promoted to being the one or more smart devices or become one or more active devices based on the track packet gap information.

32. (New) The system of claim 23, wherein the second set of the plurality of passive devices to track packet gap information relating to one or more of the packet gaps, the packet gap information including sizes of the packet gaps or frequencies of the packet gaps, and wherein the one or more of the second set of the plurality of passive devices are promoted to being the one or more smart devices or become one or more active devices based on the track packet gap information.